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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,323	01/20/2006	Tsutomu Sawada	T-1466	2209
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PORTLAND, OR 97282-0788				
EXAMINER				
AHVAZI, BILAN				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
10/27/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,323

Applicant(s)

SAWADA ET AL.

Examiner

BIJAN AHVAZI

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This action is responsive to the amendment filed on June 30, 2009.
2. Claims 1-4 are pending. Claims 1-4 is amended.
3. The rejection of claims 1-4 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in the view of the applicants' amendment.
4. The rejection of claims 1 and 3 under 35 U.S.C. 103(a) as being unpatentable over Sawada. (JP, 2003-212700 A) in view of Coleman Powermate Pulse II generator (Model # PM0401856) is withdrawn in the view of the applicants' translation of the certified copy of the priority JP 07/22/2003, to perfect the claim priority.
5. The rejection of claims 2 and 4 under 35 U.S.C. 103(a) as being unpatentable over Sawada. (JP, 2003-212700 A, machine translation) and Coleman Powermate Pulse II generator (Model # PM0401856) as applied to claims 1, 3 above, and further in view of Sawada *et al.* (JP, 2002-028471, machine translation) is withdrawn in the view of the applicants' translation of the certified copy of the priority JP 07/22/2003, to perfect the claim priority.
6. The rejection of claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada *et al.* (JP, 2002-028471, machine translation) in view of Coleman Powermate Pulse II generator (Model # PM0401856) is withdrawn in the view of the applicants' argument.
7. Claims 1-4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada *et al.* (JP, 2002-028471, machine translation) in view of Mizuno *et al.* (JP, 2002-028471, machine translation).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada *et al.* (JP, 2002-028471, machine translation) in view of Mizuno *et al.* (JP, 2002-028471, machine translation).

Regarding claims 1-4, Sawada *et al.* (JP, 2002-028471, machine translation) teach a method of a formation of the colloid crystal which is achieved by applying a pressure in form of pulses (Page 12, ¶0022), and a colloidal crystal preparation vessel having a flat plate capillary portion for formation of colloidal and gelatinized colloidal crystal, method for manufacturing colloidal crystal element, gelatinized colloidal crystal element and colloidal crystalline sheet based thereon (Abstract). Sawada *et al.* teach a colloidal crystal gelled homogeneously wherein a gelled colloidal crystal, which uses an aqueous liquid as a disperse medium (¶0011), at least comprises a polymerizable monomer or macromer, a crosslinking agent and a photopolymerization initiator, and is gelled by light irradiation (¶0024). Sawada *et al.* teach a formation method of the colloid crystal is achieved by applying a pressure in form of pulses (Page 12, ¶0022) in parallel direction which holds a monodisperse particle solution in a colloid crystal state, and makes it flow from the end in a straight flat tube which has a smooth substrates face which appears as two parallel sides in sectional shape (Page 3, Claim3).

Sawada *et al.* do not expressly teach a colloidal crystal preparation system, comprising compressed gas feeder means, gas pulse formation means for producing a compressed gas as short- time gas pulses.

However, Mizuno *et al.* teach thin-film semiconductor processing apparatus which employ a compressed gas to feed a pressure chamber in delaminating an epitaxial film from a single crystal Si substrate over a porous Si layer where the compressed gas is penetrate through the porous Si layer to push up the epitaxial film for the delamination (Claim 1). The apparatus makes possible for delamination of an epitaxial layer without damaging the surface (Abstract). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the basic constitution of the colloid single crystal production containers which has a plate shaped capillary by Sawada *et al.* so as to include any compressed generator capable of producing air pluses as taught by Mizuno *et al.* with reasonable expectation that this would result in providing automating a manual activity the formation of colloidal crystals of good single crystallinity.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the basic constitution of the colloid single crystal production containers which has a plate shaped capillary by Sawada *et al.* with any compressed generator capable of producing air pluses as taught by Mizuno *et al.* in order to automating a manual activity the formation of colloidal crystals of good single crystallinity. It is noted that applying compressed air pluses which are generated by control of a compressed gas in the instant applications' limitation claim, it is held that it is ***prima facie*** obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining

them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980).

Response to Arguments

10. Applicant's arguments filed on June 24, 2009 have been fully considered but they are not persuasive.

Applicants did not submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions regarding claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Sawada *et al.* (JP, 2002-028471, machine translation) in view of Mizuno *et al.* (JP, 2002-028471, machine translation). Furthermore, applicants fail to discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them. Thus, claims 1-4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada *et al.* (JP, 2002-028471, machine translation) in view of Mizuno *et al.* (JP, 2002-028471, machine translation) and rejection deem proper.

11. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1796

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bijan Ahvazi, Ph.D. whose telephone number is (571)270-3449. The examiner can normally be reached on M-F 8:0-5:0. (Off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BA/
Bijan Ahvazi,
Examiner
Art Unit 1796

/Ling-Siu Choi/
Primary Examiner, Art Unit 1796

10/15/2009